Influence of temperature...

and is determined by the specific resistivity of the starting germanium, the concentration of dope in the base near the emitter and on the temperature. The transit time for carriers depends substantially on the concentration of dope in the base near the emitter, but also on the temperature, especially for large values of dope concentration. The temperature dependence of the lifetime of minority carriers depends strongly on dope concentration; the maximum working temperature of drift transistors is higher, the greater the dope concentration in the base. Thus the critical frequency of drift transistors diminishes more strongly with increasing temperature, the less the concentration of dope in the base at the emitter. The possibility is envisaged of analytically calculating the temperature dependence of parameters by equivalent circuits for drift-transistors and also a scheme for temperature compensation and temperature stabilization. 7 references. [Abstracter's note: Complete translation]

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Spiridonov, Nikolay Spiridonovich; Vertogradov, Vladimir Ivanovich

Drift transistors (Dreyfovyye transistory) Moscow, Izd-vo "Sovetskoye radio," 1964. 0304 p. illus., biblio. 15,050 copies printed

TOPIC TAGS: transistor, transistorized circuit, parameter, temperature dependence, HF transistor, frequency characteristic

PURPOSE AND COVERAGE: This book systematizes the available data on drift transistors. It describes the theory, technology of manufacture, equivalent circuits, frequency characteristics, and temperature dependence of parameters of low-power drift transistors. The book is intended for engineers concerned with the development and application of transistorized circuits and with the manufacture and design of transistors, as well as for students in institutions of higher education.

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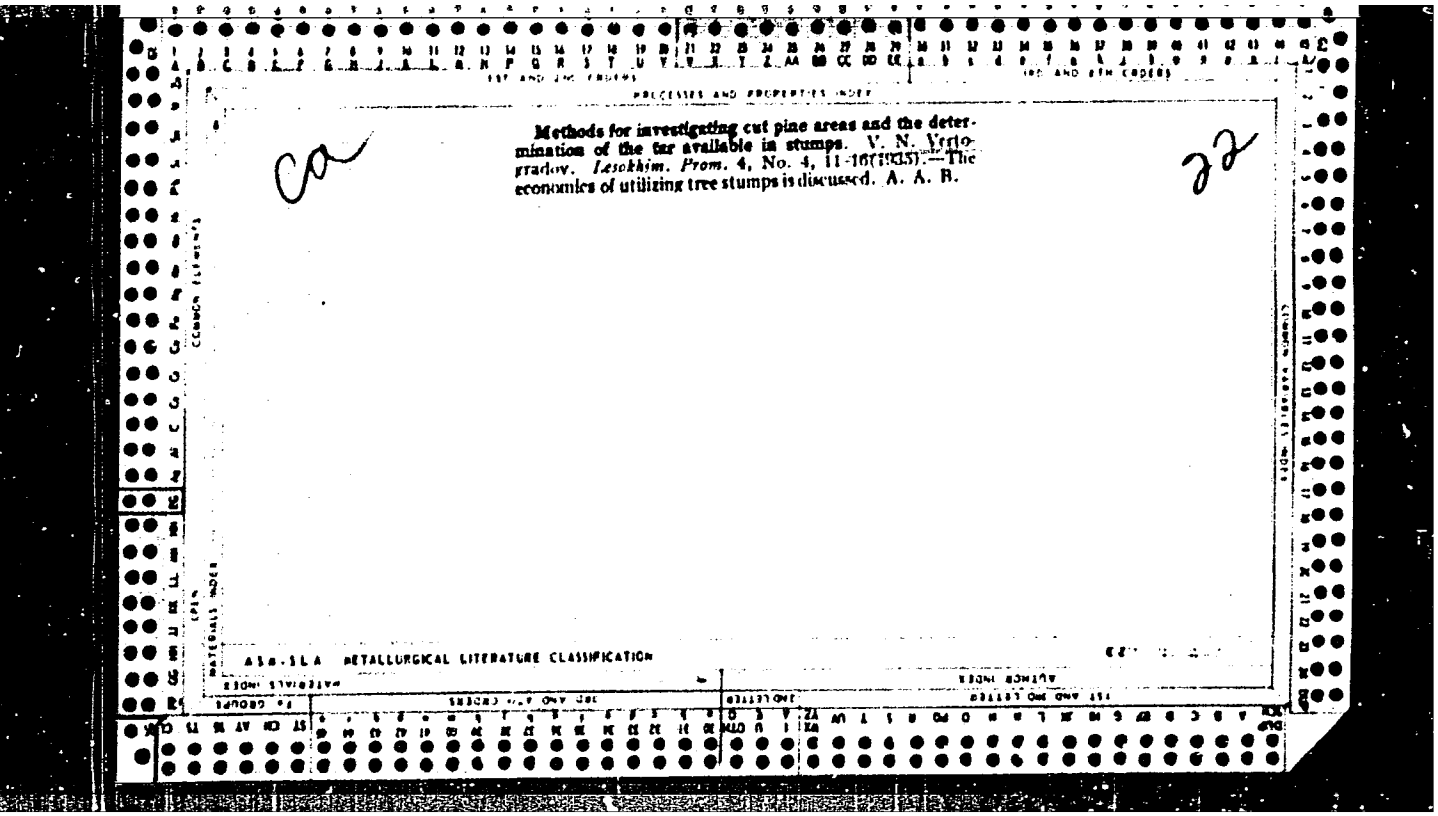

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A5a-5LA METALLURGICAL LITERATURE CLASSIFICATION

YEFREMOVA, O.G.; VERTOGRADOVA, I.N.

Effect of the treatment of ethyl cellulose with oxalic acid on its thermal stability. Uch.zap. SGU 75:117-120 '62.
(MIRA 17:3)